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DATE MAILED: 08/04/2003

FILING DATE FIRST NAMED INVENTOR APPLICATION NO. ATTORNEY DOCKET NO. CONFIRMATION NO. 07.05 2001 09 899,686 Chester A. Bacon JR. 56345US002 3477 32692 08 04 2003 3M INNOVATIVE PROPERTIES COMPANY EXAMINER PO BOX 33427 RIBAR, TRAVIS B ST. PAUL, MN 55133-3427 ART UNIT PAPER NUMBER 1711 15

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)	
Office Action Summary		09/899,686	BACON, CHESTER A.	
		Examiner	Art Unit	
		Travis B Ribar	1711	
Period fo	The MAILING DATE of this communication app or Reply	pears on the cover sheet	with the correspondence ac	idress
THE I - Exter after - If the - If NO - Failui - Any r	ORTENED STATUTORY PERIOD FOR REPLIMALING DATE OF THIS COMMUNICATION. Issions of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Period for reply specified above is less than thirty (30) days, a repliment for reply is specified above, the maximum statutory period for reply within the set or extended period for reply will, by statute eply received by the Office later than three months after the mailing displacement. See 37 CFR 1.704(b)	36(a) In no event, however, may y within the statutory minimum of will apply and will expire SIX (6) Notes the application to become	v a reply be timely filed thirty (30) days will be considered time IONTHS from the mailing date of this cost ABANDONED (35 U.S.C. § 133)	
1)	Responsive to communication(s) filed on 10.	June 2003 .		
2a)⊡		is action is non-final.		
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
Dispositi	on of Claims			
4)[•	Claim(s) 23-27,32,37,42,47,52 and 66-86 is/a	re pending in the applic	ation.	
•	4a) Of the above claim(s) is/are withdrawn from consideration.			
5)	Claim(s) is/are allowed.			
6)[`	Claim(s) <u>23-27,32,37,42,47,52 and 66-86</u> is/are rejected.			
7)	Claim(s) is/are objected to.			
	Claim(s) are subject to restriction and/o	r election requirement.		
	on Papers			
	The specification is objected to by the Examine			
10)[1	The drawing(s) filed on is/are: a)☐ accept		-	
44)	Applicant may not request that any objection to the		•	
11)[1	he proposed drawing correction filed on] disapproved by the Examin	er.
12) 🗆 🗆	If approved, corrected drawings are required in rep	•		
	The oath or declaration is objected to by the Ex	aminer.		
_	nder 35 U.S.C. §§ 119 and 120		2 2 4 4 2 4 3 4 4 3 4 5 4 5	
_	Acknowledgment is made of a claim for foreigr	n priority under 35 U.S.C	J. § 119(a)-(d) or (f).	
a)[All b) Some * c) None of:			
	1. Certified copies of the priority document		A (C. C. A)	
	2. Certified copies of the priority document			
	 Copies of the certified copies of the prior application from the International Bu ee the attached detailed Office action for a list 	reau (PCT Rule 17.2(a)).	Stage
	cknowledgment is made of a claim for domesti	•		
	en e			
Attachment				
2) 🔲 Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) ration Discourse Statement & Total 144 of Grand 1, or many	5) Notice	ew Summary (PTO-413) Paper No of Informal Patent Application (PT	

- 1003_6000, 0401)

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DETAILED ACTION

1. The applicant's amendments, filed April 11 and April 28, 2003 overcome all prior rejections.

Claim Rejections - 35 USC § 112

2. Claims 23-27, 32, 37, 42, 47, 52, 66-79, 81-84, and 86 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for some polymer compositions that have the solubility properties the applicant claims, does not reasonably provide enablement for all polymer compositions that have the solubility properties the applicant claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

This rejection may be overcome by adding to independent claims 23 and 81 polymer limitations or compositions such as those polymer compositions found in dependent claims 69 and 70.

Claim Objections

3. The examiner believes that claim 79 is meant to depend from claim 74, not claim 23 as written, and will examine the claim accordingly. The examiner bases this interpretation on the dependency pattern of claims 75-78, which all depend from claim

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 5. Claims 23-27, 32, 47, 74, 76-79, and 81-83 are rejected under 35 U.S.C. 102(b) as being anticipated by Golumbic.

Golumbic discloses a coating composition that is used to coat flexible plastics (column 2, line 40), which includes films, and other substrates (applicant's claim 32), some of which may be colored (such as leather) meeting claim 47. The coating composition is stain resistant and flexible (column 1, lines 47-49 and 66-67, meeting those part of claims 23 and 81) and is made from a mixture of two polyurethanes (PU's) having different elongations, such as one having an elongation of about 400% and another having an elongation of 150%, meeting those requirements of claims 74, 76-78, and 81-83. The coating composition is made using wax, indicating that the surface slip of the composition would be greater than the surface slip of the pure polyurethane mixture (column 3, lines 39-63), meeting claims 25 and 79. The coating may also be transparent (column 2, lines 19-20, meeting claim 26) and have the thickness the

the polymer composition is soluble in acetone (column 4, lines 3-5), which is included in

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claim 81 and in the applicant's specification. The reference does not disclose the solubility of the coating composition in other solvents. However, the examiner believes the solubility properties of the polymer in Golumbic inherently meet the solubility parameters of claims 23-24 because Golumbic uses the same polymer blend (PU of differing elongations) as the applicant, the polymer blend is soluble in the one solvent that both the reference and the applicant specify, and the polymer blend is being used in the same application—a coating for a substrate. Since the polymer blends share those properties, the examiner believes the solubility parameters the applicant claims to be inherently present in the composition in Golumbic.

By the same token, the composition in Golumbic is assumed to be inherently printable and therefore meet those aspects of the claims, since it shares the same chemical composition as the applicant's claims and is also used for the same purpose as the applicant's composition.

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7 Claims 30-37-10-17-50-91 and 96 are rejected under 25 U.S.O. 100765 at

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Fleming discloses a retroreflective article that includes a substrate and a layer of PU that contains colorant (column 9, line 21) and meets this aspect of claims 32, 37, 42, 47, 52, 84, and 86. Fleming does not, however, disclose a coating of the composition that the applicant claims in claims 23, 84, or 86. Golumbic discloses these aspects of the claims and is applied as discussed above.

Golumbic discloses this coating and teaches that the coating composition is useful for coating substrates to give them high impact and abrasion resistance, good elongation and flexibility, and outstanding stain and chemical resistance (column 1, lines 65-67). When the coating in Golumbic et al. is used as the PU layer in the retroreflective sheeting in Fleming, the retroreflective sheeting will have these useful properties. Conversely, when the retroreflective sheeting in Fleming is coated with the PU composition in Golumbic, the PU layer between the coating and the substrate is by definition a bonding layer that connects the two layers.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to coat the retroreflective sheet in Fleming with the coating in Golumbic et al. The motivation for doing so would be to provide protection from environmental degradation to the retroreflective sheet. Therefore it would have been obvious to combine Golumbic et al. with Fleming to obtain the invention as specified in claims 32, 37, 42, 47, 52, 84, and 86.

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Allowable Subject Matter

8. Claims 66-73, 80, and 85 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The applicant's claimed composition that includes a reaction product of a hard and a soft polymer is not found in the prior art. The closest prior art is Golumbic, which discloses a blend of a hard and soft polymer, but does not disclose crosslinking them.

Response to Arguments

10. Applicant's arguments with respect to claims 23-27, 32, 37, 42, 47, and 52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

MONTHS from the mailing date of this action. In the event a first reply is flied within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis B Ribar whose telephone number is (703) 305-3140. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Travis B Ribar Examiner
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